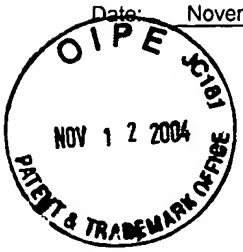
IFW 1623

I hereby certify that this correspondence is being sent by facsimile transmission (703-872-9306) in accordance with § 1.6(d) addressed to Mail Stop Amendment, Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450, on the date shown below.

Date: November 10, 2004 By: Kay L. Gaviglio



PATENT
Docket No. GC 541-3-D1

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of	)	
	)	
Maier et al.	)	Group Art Unit: 1623
	)	
Serial No.: 10/062,970	)	Examiner: Maier, Leigh C.
	)	
Filed: February 1, 2002	)	
	)	
For: **Chemically Modified Proteins with A Carbohydrate Moiety**	)	

Supplemental Information Disclosure Statement

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Applicants are responding to a request by Examiner Maier in a Office Action dated March 25, 2004. Applicants filed a response to the Office Action stating there would be a delay to the Information Disclosure request. Examiner Maier requested that the complete Information Disclosure be resubmitted because the examiner was unable to locate the references submitted for the parent, U.S.S.N. 09/347,029 filed July 2, 1999.

Applicants submit herewith patents, publications or other information (listed on the attached Form PTO-1449 and attached thereto) of which they are aware, that they believe may be material to the examination of this application and in respect of which there may be a duty to disclose in accordance with 37 CFR §1.56.

Those patent(s) or publication(s) which are marked with an asterisk (*) on the attached Form PTO-1449 are not supplied because they were previously signed off by the Examiner.

A concise explanation of relevance of the items listed on PTO-1449 is:

☒ not given

☐ given for each listed item

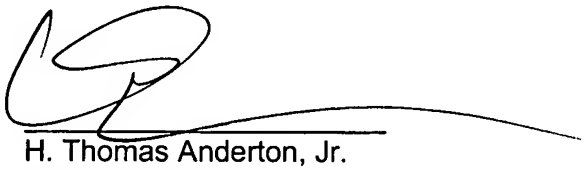
☐ given for only non-English language listed item(s)

☐ in the form of an English language copy of a Search Report from a foreign patent office, issued in a counterpart application, which refers to the relevant portions of the references.

While the information and references disclosed in this Information Disclosure Statement may be "material" pursuant to 37 CFR §1.56, it is not intended to constitute an admission that any patent, publication or other information referred to therein is "prior art" for this invention unless specifically designated as such.

In accordance with 37 CFR §1.97(b), the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made or that no other material information as defined in 37 CFR §1.56(a) exists. It is submitted that the Information Disclosure Statement is in compliance with 37 CFR §1.98 and MPEP §609 and the Examiner is respectfully requested to consider the listed references.

Respectfully submitted,



Date: November 10, 2004

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U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. GC541-3-D1 Previously 23623-7076	SERIAL NO. 10/062,970
SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)	APPLICANT Jones et al.	
(PTO-1449)	FILING DATE February 1, 2002	GROUP ART UNIT 1623

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REFERENCE DESIGNATION **U.S. PATENT DOCUMENTS**

EXAM'R INITIAL		DOCUMENT NUMBER	DATE	NAME	Class	Subclass	Filing Date If Appropriate
	A1	*5,403,737	04/04/95	Abrahmsen et al.			
	A2	*5,629,173	05/13/97	Abrahmsen et al.			
	A3	*5,316,935	05/31/94	Arnold et al.			
	A4	*5,208,158	05/04/93	Bech et al.			
	A5	*5,244,791	09/14/93	Estell			
	A6	*5,316,941	05/31/94	Estell et al.			
	A7	*5,955,340	02/21/99	Bott			
	A8	*5,340,735	08/23/94	Christianson et al.			

FOREIGN PATENT DOCUMENTS

EXAM'R INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	Subclass	TRANSLAT'N
	B1	EP 0 328 229 A1	08/16/89	EP			
	B2	*WO 00/01712	01/13/00	PCT			
	B3	WO 91/16423	04/18/91	PCT			
	B4	WO 96/27671	02/27/96	PCT			
	B5	WO 97/37007	10/09/97	PCT			
	B6	WO 98/23732	06/04/98	PCT			
	B7	WO 99/20723	04/29/99	PCT			
	B8	WO 99/37323	07/29/99	PCT			
	B9	WO 99/37324	07/29/99	PCT			

OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, Etc.)

	C1	Bech et al., "Chemical Modifications of a Cysteinyl Residue Introduced in the Binding Site of Carboxypeptidase Y by Site-Directed Mutagenesis," Carlsberg Res. Commun., 53:381-393 (1988)
	C2	Bech et al., "Significance of Hydrophobic S_4-P_4 Interactions in Subtilisin 309 from *Bacillus Ientus*," Biochemistry, 32:2847-2852 (1993)
	C3	Berglund et al., "Altering the Specificity of Subtilisin *B. Lentus* by Combining Site-Directed Mutagenesis and Chemical Modification," Bioorganic & Mechanical Chemistry Letters, 6:2507-2512 (1996)
	C4	*Berglund et al., "Chemical Modification of Cysteine Mutants of Subtilisin *Bacillus Lentus* Can Create Better Catalysts Than The Wild-Type Enzyme," J. Am. Chem. Soc., 119:5265-5266 (1997)

EXAMINER	DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance *and* not considered. Include copy of this form with next communication to Applicant(s).

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE **SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT BY APPLICANT** (Use several sheets if necessary)	**ATTY. DOCKET NO.** GC541-3-D1 Previously 23623-7076	**SERIAL NO.** 10/062,970
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	C5	Betzel et al., "Crystal Structure of the Alkaline Proteinase Savinase™ from *Bacillus lentus* at 1 4 Å Resolution," J. Mol. Biol., 223:427-445(1992)
	C6	Bonneau et al., "Alteration of the Specificity of Subtilisin BPN' by Site-Directed Mutagenesis in its S_1 and S_1' Binding Sites," J. Am. Chem. Soc., 113:1026-30 (1991)
	C7	Brocklehurst, "Specific Covalent Modification of Thiols: Applications in the Study of Enzymes and Other Biomolecules," Int. J. Biochem., 10:259-274 (1979)
	C8	Bruice *et al.*, "Novel Alkyl Alkanethiolsulfonate Sulfhydryl Reagents. Modification of Derivatives of L-Cysteine," Journal of Protein Chemistry, 1:47-58 (1982)
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U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE **SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT BY APPLICANT** (Use several sheets if necessary) (PTO-1449)	**ATTY. DOCKET NO.** GC541-3-D1 Previously 23623-7076	**SERIAL NO.** 10/062,970
	APPLICANT Jones et al.	
	FILING DATE February 1, 2002	GROUP ART UNIT 1623

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	C20	Gron et al., "A Highly Active and Oxidation-Resistant Subtilisin-Like Enzyme Produced by a Combination of Site-Directed Mutagenesis and Chemical Modification," Eur. J. Biochem., 194:897-901 (1990)
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	C29	Paulson, J.C., "Glycoproteins: what are the sugar chains for?" TIBS, 14:272-276 (1989)
	C30	Planas et al., "Reengineering the Catalytic Lysine of Aspartate Aminotransferase by Chemical Elaboration of a Genetically Introduced Cysteine," Biochemistry, 30:8268-8276 (1991)
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	C32	Plettner, Erika et al., "A Combination Approach to Chemical Modification of Subtilisin Bacillus Lentus," Bioorganic & Medicinal Chemistry Letters (Sept. 8, 1998) Vol. 8, No. 17, pp. 2291-2296, XP0004138220
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	C38	Smith et al., "Chemical Modification of Active Site Residues in γ-Glutamyl Transpeptidase," The Journal of Biological Chemistry, 270:12476-12480 (1995)
	C39	Smith et al., "Restoration of Activity to Catalytically Deficient Mutants of Ribulosebisphosphate Carboxylase/Oxygenase by Aminoethylation," The Journal of Biological Chemistry, 263:4921-4925 (1988)
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	C42	Spura, A., et al. "Probing Agonist Domain of the Nicotinic Acetylcholine Receptor by Cysteine Scanning Mutogenesis Reveals Residues in Proximity to the Alpha-Bungarotoxin Binding Site, Biochemistry, 20 Apr. 1999 Vol. 38:16 pp. 4912-4921
	C43	Stewart et al., "Catalytic Oxidation of Dithiols by a Semisynthetic Enzyme," J. Am. Chem. Soc., 108:3480-3483 (1986)
	C44	Valenzuela et al., "Kinetic Properties of Succinylated and Ethylenediamine-Amidated δ-Chymotrypsins," Biochim. Biophys. Acta, 250:538-548 (1971)
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	C46	White et al., "Sequential Site-Directed Mutagenesis and Chemical Modification to Convert the Active Site Arginine 292 Of Aspartate Aminotransferase to Homoarginine," Journal of the American Chemical Society, 114:292-293 (1992)
	C47	Wynn et al., "Chemical Modification of Protein Thiols: Formation of Mixed Disulfides," Methods in Enzymology, 251:351-356 (1995)
	C48	Wynn et al., "Comparison of Straight Chain and Cyclic Unnatural Amino Acids Embedded in the Core of Staphylococcal Nuclease," Protein Science, 6:1621-1626 (1997)
	C49	Wynn et al., "Mobile Unnatural Amino Acid Side Chains in the Core of Staphylococcal Nuclease," Protein Science, 5:1026-1031 (1996)
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